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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/063,373

04/16/2002

Thomas L. Toth

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ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (GEMS)

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EXAMINER

NGUYEN, VAN KIM T

ART UNIT

PAPER NUMBER

2151

DATE MAILED: 10/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/063,373

Applicant(s)

TOTH, THOMAS L.

Examiner

Van Kim T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/23/02; 9/3/03; 12/21/03</u> | 6) <input type="checkbox"/> Other: _____ |

AT

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 11-12, 18-20, 25, and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Liu (US 6,597,938).

Regarding claims 1, 12, 18, and 25, as shown in Figures 1-3, Liu discloses a method of constructing a network for administering imaging sessions, comprising:

providing at least one database (62, 100) for storing a plurality of scan parameter values (col. 4: lines 45-52; col. 6: lines 38-40);

configuring an imaging scanner (diagnostic imager) to be communicatable with the database and further configuring the imaging scanner to automatically transmit (updates) scan parameter values for a set of scan parameters to the at least one database following execution of an imaging scan (col. 3: line 56 – col. 4: line 35; col. 4: line 64 – col. 5: line 65); and

providing a user module (60, 116) connected to the imaging scanner and communicatable with the at least one database (62, 100) and configuring the user module to access the database in

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response to a user input to determine a summary of prior imaging scans (col. 4: lines 31-35; col. 6: lines 40-44).

Regarding claims 2 and 19, Liu also discloses a computer (71/72, 82, 64) programmed to determine a dosage summary of the one or more previous imaging scans executed in accordance with scan parameters similar to those of the desired imaging scan, (col. 4: line 64 – col. 6: line 26).

Regarding claims 3 and 20, Liu also discloses the computer (71/72, 82, 64) is further programmed to automatically store data for scan parameters for the desired imaging scan on the updatable database following execution of the desired imaging scan, (col. 4: line 64 – col. 6: line 26).

Regarding claim 4, Liu also discloses the computer (71/72, 82, 64) is further programmed to match the scan parameters for the desired imaging scan with scan parameters of the one or more previous imaging scans and update the data on the updatable database with scan parameter data of the desired imaging scan, (col. 4: line 64 – col. 6: line 26).

Regarding claim 5, Liu also discloses imaging scan parameters include at least one of scan type, patient type, patient age, patient gender, patient height, patient weight, diagnostic objective, scanner model, noise index, and reconstruction protocol (Liu: col. 4: lines 36-45).

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Regarding claims 7, 9-10 and 21- 22, Liu also discloses the at least one updatable database includes a first database and a second database , wherein the first imager is located in a first facility and the second imager is located in a second facility remotely located from the first facility, (col. 5: lines 47-65).

Regarding claim 8, Liu also discloses the computer is further programmed to access the second database prior to the desired imaging scan and further programmed to compare scan parameters for the desired imaging scan with data stored on the second database, wherein the data stored on the second database correspond to imaging scan parameters for one or more imaging scans executed by the at least one other imaging apparatus, (col. 5: lines 47-65).

Regarding claim 13, Liu also discloses a monitor (52, 108) connected to the user module and configuring the user module to display the summary on the monitor (col. 4: lines 31-42; col. 6: lines 40-44; and col. 6: line 65 – col. 7: line 8).

Regarding claim 14, Liu also discloses the summary includes a histogram of scan parameter values from the prior imaging scans, (col. 4: line 64 – col. 6: line 26).

Regarding claim 16, Liu also discloses remotely locating the imaging scanner from the at least one database (col. 5: lines 47-65).

Regarding claim 17, Liu also discloses locating the imaging scanner in a medical treatment facility and locating the at least one database remotely from the medical treatment facility (col. 5: lines 47-65).

Regarding claim 23, Liu also discloses the at least one imager includes a first imager located in a first facility and a second imager located in a second facility remotely located from the first facility and wherein the at least one database is located in one of the first facility and the second facility, (col. 5: lines 47-65).

Regarding claim 24, Liu also discloses the at least one imager includes a first imager located in a first facility and a second imager located in a second facility remotely located from the first facility and wherein the at least one database is located in a facility remotely located from the first and the second facilities and connected to the first imager and the second imager via an electronic communications link, (col. 5: lines 47-65).

Regarding claim 27, Liu also discloses the database is located remotely from an imaging apparatus used to execute the imminent imaging session, (col. 5: lines 47-65).

Regarding claim 28, Liu also discloses the imaging apparatus is located in a treatment facility and the database is located remotely from the treatment facility, (col. 5: lines 47-65).

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Regarding claim 29, Liu also discloses the set of instructions further causes the one or more computers to access the database via an electronic communications link, (col. 5: lines 47-65).

Claim Rejections - 35 USC § 102

2. Claims 30 and 35-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Kelender (Eur. Radiol. 9, Springer-Verlag 1999, pages 555-562).

Regarding claims 30 and 35, Kelender discloses:

defining a proposed scan protocol (e.g., CT; Introduction, page 555);

retrieving scan data from at least one similar scan prescription based on the proposed scan protocol (Material and methods: *General concepts*; and *Input data and parameters*, pages 556-557);

comparing dose exposure of the scan data with that of the proposed scan protocol; and allowing adjustment to the proposed scan protocol to reduce dose exposure if the comparison results in excessive deviation (*Calculation steps*; *Output parameters*; and *Results*, pages 556-560).

Regarding claim 36, Kelender also discloses the proposed scan protocol is based on at least one of an exam type (e.g., CT angiography), a demographics selection (e.g., gender, “Adam and “Eva”), a scanner model (e.g., Somatom Plus 4 CT system), patient characteristics,

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(Introduction; Material and methods: *General concepts*; and *Input data and parameters*, pages 555-557) .

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Liu (US 6,597,938), as apply to claim 1 and 12 above, in view of Kelender (Eur. Radiol. 9, Springer-Verlag 1999, pages 555-562).

Liu discloses substantially all the claimed limitations, except 1, Liu also discloses redefining the desired imaging scan to reduce x-ray exposure during the acquisition of the CT data and including an indication of radiation used to acquire imaging data during the prior imaging scans.

Kelender teaches calculating scan parameters based on stored data and adjusting radiation level based on the results (pages 555-560).

Kelender and Liu teach analogous arts, relating to diagnostic imaging, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Kelender's method of estimating CT dosage in Liu's system, motivating by the desire of reducing patient's exposure to harmful rays.

Claim Rejections - 35 USC § 103

5. Claims 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelender (Eur. Radiol. 9, Springer-Verlag 1999, pages 555-562), as apply to claim 30 above, in view of Liu (US 6,597,938).

Kelender discloses substantially all the claimed limitations, except the step of accessing a database having data stored thereon corresponding to the one or more previously executed imaging sessions.

As shown in Figures 1-3, Liu discloses accessing a database (62, 100) having data stored thereon corresponding to the one or more previously executed imaging sessions, (col. 4: lines 45-52; col. 6: lines 38-40).

Kelender and Liu teach analogous arts, relating to diagnostic imaging, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Kelender's method of estimating CT dosage in Liu's system, motivating by the desire of reducing patient's exposure to harmful rays.

Regarding claim 32, Liu also discloses accessing the database via a communications link, (col. 5: lines 47-65).

Kelender and Liu teach analogous arts, relating to diagnostic imaging, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Kelender's method of estimating CT dosage in Liu's system, motivating by the desire of reducing patient's exposure to harmful rays.

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Regarding claim 33, Liu also discloses the database is remotely located from setups of the imminent imaging session, (col. 5: lines 47-65).

Kelender and Liu teach analogous arts, relating to diagnostic imaging, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Kelender's method of estimating CT dosage in Liu's system, motivating by the desire of reducing patient's exposure to harmful rays.

Regarding claim 34, Liu also discloses automatically storing the number of scan parameters and dosage used during execution of the imminent imaging session on the database, (col. 4: lines 31-35; col. 6: lines 40-44).

Kelender and Liu teach analogous arts, relating to diagnostic imaging, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Kelender's method of estimating CT dosage in Liu's system, motivating by the desire of reducing patient's exposure to harmful rays.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Van Kim T. Nguyen whose telephone number is 571-272-3073. The examiner can normally be reached on 8:00 AM - 4:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung, can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Van Kim T. Nguyen
Examiner
Art Unit 2151

vkn


ZARNI MAUNG
SUPERVISORY PATENT EXAMINER